EPA/ESD/R04-02/075
2002

EPA Superfund
Explanation of Significant Differences:

ROCHESTER PROPERTY
EPA ID: SCD980840698
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TRAVELERS REST, SC
07/08/2002

EXPLANATION OF SIGNIFICANT DIFFERENCE
to the
Final Record of Decision
Rochester Property NPL Site
Traveler's Rest, South Carolina
July 2002

I. INTRODUCTION AND STATEMENT OF PURPOSE

This Explanation of Significant Differences (ESD) has been prepared to document a significant change to the remedy as described in the August 23, 1993 Final Record of Decision (ROD) for the Rochester Property Site (the Site) located in Traveler's Rest, South Carolina. The United States Environmental Protection Agency (EPA), as the lead agency, is issuing this ESD pursuant to public participation requirements specified in Section 117(c) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Section 300.435(c)(2)(i) of the National Contingency Plan (NCP). The South Carolina Department of Health and Environmental Control (SCDHEC) is the support agency for this Site.

In-situ air-sparging was the selected remedy, as stated in the ROD, to treat contaminated groundwater by pumping air through trench(es) and/or wells in the saturated zone of the aquifer. As the air (bubbles) made contact with the contaminants in the ground water, the contaminants, primarily trichloroethene (TCE), would be volatilized into the outside air through vent pipes.

The system was installed utilizing two trenches to distribute the air into the saturated zone of the aquifer. After a final inspection, the system began operation in 1995. The system worked as designed and the two wells with the highest levels of TCE contamination reached performance standards (drinking water standards, or MCLs). After a period of time, however, one of the deeper monitoring wells, located at the most down gradient point of the contaminant plume, which had not previously had any contaminants, began to show elevated levels of trichloroethene (TCE). The decision was made to turn the system off since it was believed that the operation of the system was pushing a possible slug of contamination towards this deeper well. Discussions between EPA, SCDHEC, and the Responsible Party (RP), resulted in a decision to modify the current system by installing wells and sparging with air and ozone instead of just air.

This ESD document will become part of the Administrative Record for the Site pursuant to NCP Section 300.825(a)(2). The Administrative Record for this Site is available for public review at the EPA Region 4 Records Center, Atlanta Federal Center, 61 Forsyth Street, SW, Atlanta, Georgia 30303; and the Traveler's Rest Library, 310 South Main Street, Traveler's Rest, South Carolina, 29690.

II. SITE HISTORY AND THE SELECTED REMEDY

The Site consists of approximately 4.5 acres in a rural unzoned portion of Greenville County, South Carolina, approximately (3) three miles west of the town of Travelers Rest. The Site received wastes which were thought to include wood glue, print binders, powder materials,

natural guar gums, adhesive for food packages and adhesive restick for envelopes. The waste materials were placed in four (4) trenches sometime between late 1971 and early 1972. Each of the trenches was approximately forty (40) feet long, three (3) feet wide and ten (10) feet deep. The waste was subsequently removed from the Site in 1990 by Colonial Heights Packaging (RP) under an Administrative Order on Consent (AOC), entered into with EPA in June 1989.

The Site was proposed to the National Priorities List (NPL) in June 1986 and became final on the NPL in October 1989. In February 1992, a Remedial Investigation/Feasibility Study (RI/FS) was initiated by Colonial Heights Packaging, Inc. under an AOC with EPA. The final FS Report was submitted in May 1993. A final remedy was issued by EPA in the ROD dated August 31, 1993. The ROD specified in-situ air-sparging to treat contaminated groundwater. The remedy involved pumping air through trench(es) and/or wells in the saturated zone of the aquifer. As the air (bubbles) made contact with the contaminants in the water, the contaminants would be volatilized into the outside air through vent pipes.

III. BASIS FOR THE DOCUMENT

The system was installed during the remedial action utilizing two trenches to distribute the air into the saturated zone of the aquifer. After a final inspection, the system began operation in 1995. The system worked as designed and all the wells that had shown contamination during the RI, including the two wells with the highest levels of contamination, reached performance standards. However, one of the four most downgradient wells, which did not show any contamination during the RI, began to show elevated levels of trichloroethene (TCE). The decision was made to turn the system off since it was believed that the operation of the system was possibly pushing contaminated groundwater that was past the second trench, towards that well. No other permanent monitoring well showed any TCE. Additional groundwater samples were collected using a geoprobe. These samples were collected down gradient and adjacent to this one contaminated permanent monitoring well. It was determined that the contaminated groundwater had migrated further down gradient of the permanent monitoring well. After numerous discussions between EPA, SCDHEC, and the RP to consider other available remediation options, a decision was reached to modify the current system by installing wells and sparging with air and ozone instead of just air. It is believed that the ozone will react with the TCE at a faster rate than just air alone.

IV. DESCRIPTION OF SIGNIFICANT DIFFERENCE

The Feasibility Study and Final ROD stated that trench(es) and/or wells would be used to sparge air into the saturated zone of the aquifer. The significant change to the ROD is that instead of just air being sparged, it will now include ozone as well. In addition, recirculation wells will be installed to improve the distribution of the ozone thereby maximizing the in-situ treatment efficacy. Pilot testing on the modified system was conducted from January 2001 to May 2001 to evaluate ozone/air sparging. The results of the pilot study showed that the ozone sparging should be effective at remediating the remainder of the groundwater contamination in a fairly short period of time (possibly within two years). All other requirements of the ROD remain in full force and

effect. A summary report/preliminary design was submitted in June 2001. EPA and SCDHEC comments were addressed in the Final Design submitted March 12, 2002, and revised May 2002. This report was approved on June 13, 2002.

V. SUPPORT AGENCY COMMENTS

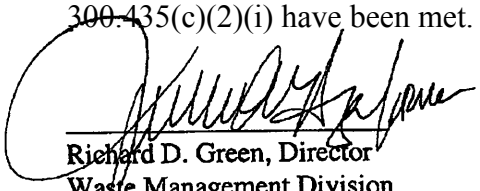
SCDHEC has reviewed this ESD and the supporting documentation, and concurs with EPA's modified remedy for the Rochester Property Site. The SCDHEC concurrence letter is attached to this document for reference.

VI. STATUTORY DETERMINATIONS

Pursuant to the requirements of CERCLA Section 121, the modified remedy for the Rochester Property Site is adequately protective of human health and the environment, complies with applicable or relevant and appropriate requirements, is cost-effective and utilizes permanent solutions and alternate treatment technologies or resource recovery technologies to the maximum extent practicable. Air-sparging using air and ozone also satisfies the preference for remedies that employ treatment to permanently and significantly reduce the volume, toxicity, or mobility of hazardous wastes as a principal element.

VII. PUBLIC PARTICIPATION COMPLIANCE

This ESD and other supporting documentation will be placed in the Administrative Record locations referred to in Section I above for public review. A notice will be published in a local newspaper of general circulation to summarize the ESD and reasons supporting the modified remedy. Therefore, the public participation requirements set forth in NCP Section 300.435(c)(2)(i) have been met.



Richard D. Green, Director
Waste Management Division
U.S. EPA - Region 4

7/8/02
Date

D H E C

PROMOTE PROTECT PROSPER

2600 Bull Street
Columbia, SC 29201-1708

June 17, 2002

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Atlanta, Georgia 30303

Re : Rochester Property Superfund Site
Explanation of Significant Difference to the
Final Record of Decision

Dear Mr. Palmer:

The Department has reviewed and concurs with all parts of the Explanation of Significant Difference (ESD) to the Record of Decision (ROD) dated June 2002 for the Rochester Property Superfund Site located in Traveler's Rest, South Carolina. In concurring with this ESD, the South Carolina Department of Health and Environmental Control (SCDHEC) does not waive any right or authority it may have under federal or state law. SCDHEC reserves any right or authority it may have to require corrective action in accordance with the South Carolina Pollution Control Act. These rights include, but are not limited to, the right to insure that all necessary permits are obtained, all clean-up goals and remedial criteria are met, and to take separate action in the event clean-up goals and remedial criteria are not met. Nothing in the concurrence shall preclude SCDHEC from exercising any additional administrative, legal and equitable remedies available to require additional response actions in the event that: (1)(a) previously unknown or undetected conditions arise at the site or (b) SCDHEC receives information not previously available concerning the premises upon which SCDHEC relied in concurring with the selected alternative; and (2) the implementation of the remedial alternative selected in the ROD is no longer protective human health or the environment.

The Department concurs with the selected alternative for groundwater remediation as described in the ESD. It is our understanding that the significant change to the ROD alternative for groundwater will be the in-situ sparging of ozone in addition to air. In addition, recirculation wells will be installed and utilized to improve the distribution of the ozone and maximize the treatment efficiency. Finally, it is the Department's understanding that all other requirements of the ROD will remain in effect.

If you should have any questions regarding the Department's concurrence with the ESD, please contact Scott Wilson at (803) 896-4077.

Sincerely,

R. Lewis Shaw
Deputy Commissioner
Environmental Quality Control

cc : Hartsill Truesdale, BLWM
Keith Lindler, BLWM
Richard Haynes, BLWM
Scott Wilson, BLWM
Jim Bowman, BLWM
Susan Turner, App II EQC
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